Reducing toxic threats, cleaning up Puget Sound and managing our water

Department of Ecology priorities and action agenda for 2006

Washington's air, land and water quality have improved dramatically since the Department of Ecology was created in 1970. Air quality is significantly better, toxic industrial discharges have been cut, we generate about half of the hazardous waste that we did 20 years ago, landfills have been modernized, recycling has been widely embraced, large oil spills happen less often, and thousands of contaminated sites have been cleaned up.

Nevertheless, the environment is still under tremendous pressure from rapid urbanization, growing demand on water supplies, and from toxic substances used in industrial processes and many consumer products.

Managing Columbia River Water

The 2006 Legislature handed the Dept. of Ecology a historic opportunity to accelerate the pace of toxic cleanups, reduce toxic threats and manage existing water resources in our state for the benefit of people, farms and fish.

The landmark Columbia River Basin Water Resource Management bill breaks through years of gridlock and establishes a roadmap for meeting water needs in Eastern Washington. Funded by $20 million this year and a $200 million, 10-year bond, the legislation creates a formula for allocating newly stored water, jumpstarts conservation and management operations and protects and restores salmon runs on the river. Read more about the Columbia Water Partnership on page 4.

Cleaning up Puget Sound

Puget Sound is an ecosystem in trouble. Seizing the chance to make investments that will ensure the Sound will forever be a thriving natural system, the Legislature approved $51.75 million to protect and restore Puget Sound and Hood Canal. This is an opportunity to speed up toxic site cleanups, help homeowners repair failing septic systems, invest in wastewater improvement facilities at state parks, pre-position spill response equipment, and reduce stormwater runoff. Read more about efforts to save Puget Sound and Hood Canal beginning on page 2.

Investments to clean up toxic contamination, reduce toxic threats and manage our water will help ensure a vibrant quality of life and economic stability.

"We've made dramatic progress in cleaning up our air, land and water. But our natural resources, our quality of life and our economic stability face growing threats from rapid urbanization, demand for more water, and from toxic substances that poison the environment. The Department of Ecology is focused on major strategic priorities where we can make real progress toward protecting human health and the environment, and improving our quality of life."

- Jay Manning, Director

The Columbia River is a lifeline for the entire region, supporting growing communities, agriculture, business, recreation and fishing.

Part 1: Saving Puget Sound and Hood Canal

Governor Gregoire's Puget Sound Initiative is a $51.75 million targeted investment for protecting and restoring Puget Sound and Hood Canal, including $36 million to Ecology to accelerate cleanup projects in the Sound and Canal. The following projects are funded through this supplemental budget strategy.

Speed up toxic site cleanup programs

Ecology will accelerate the cleanup of contaminated onshore sites that pose a serious risk to the inland marine waters. Of the 668 known or suspected contaminated sites within a half mile of the Puget Sound shoreline, cleanups are underway at 553 sites. The remaining 115 sites will be prioritized and targeted for cleanup. A combination of strategies will be used including the Voluntary Cleanup Program and contracted cleanups for orphaned and abandoned sites.

http://www.ecy.wa.gov/programs/tcp/vcp/Vcpmain.htm

$4.73 million State Toxics Control Account ($730,000 operating and $4 million capital)

Bellingham Bay and Port of Tacoma Cleanup

Continues the clean up of 11 contaminated properties in Bellingham Bay on-shore, including the 137-acre Georgia-Pacific Mill site, and capping contaminated sediments at the Port of Tacoma under Pier 25 as part of the larger Commencement Bay cleanup. This fully funds these projects for the 2005-07 biennium.

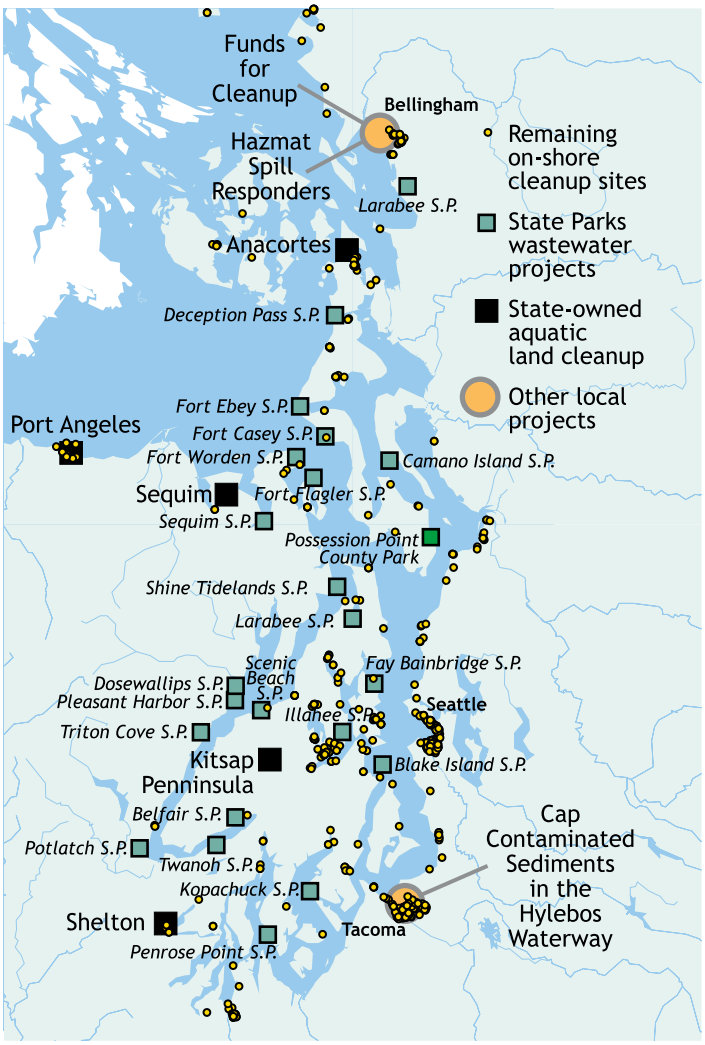
$7.5 million (capital) Local Toxics Control Account, $3.4 million (capital) Local Toxics Control Account

Clean up aquatic lands

Jointly carried out by the Department of Ecology and the Department of Natural Resources, this program will target contaminated aquatic sites for early cleanup and source control to restore natural resources, including geoduck, other shellfish, and/or habitat. The selected projects will integrate aquatic cleanup with adjacent upland source removal and source control. The work will be done through a combination of direct action by the state, contributions from liable parties, and agreements with local governments and resource agencies.

$5 million (capital) State Toxics Control Account

Puget Sound Cleaup Projects



Why this matters

When toxic pollutants get into Puget Sound and Hood Canal, they settle to the bottom, then work their way into the food chain and accumulate, ultimately threatening the entire ecosystem. Today, more than 5,700 acres of underwater lands in Puget Sound and Hood Canal exceed toxic levels. In 2005, Puget Sound's orca whales were listed as an endangered species, joining a number of salmon species and 38 other native species in the Puget Sound region that are listed either as threatened or endangered.

Hood Canal near Union. The Canal has a growing dead zone caused by pollution.

Help homeowners save the Sound

Expands a state-wide grant program to help homeowners repair failing septic systems. Up to $1 million in grants will be used to help financially distressed homeowners repair and replace failing on-site systems. In addition, Ecology, working with the Puget Sound Action Team, the Department of Health, local governments and the lending industry will pilot a loan program to provide broader coverage throughout the sound.

$6.5 million (capital), $1.5 million State Water Quality Account and $5 million State Water Pollution Control Revolving Account

Why this matters

There are about 472,000 septic tank systems in the Puget Sound region that are not connected to sewage treatment plants. Many of them are aging and in disrepair, allowing human waste to reach the Sound. This pollution has forced the closure of shellfish beds to protect public health, which also creates economic hardship for shellfish growers – one of Washington's oldest industries. Hood Canal has an expanding dead zone, caused by raw sewage from these septic systems and other pollution.

Stop pollution from state parks

During the next year, Washington State Parks will repair failing wastewater treatment plants and make other environmental improvements at Puget Sound state parks, making them models of Sound-friendly development with restored shorelines and advanced stormwater and wastewater treatment facilities. Ecology is working with Parks and the Department of Health to expedite this work.

$3.5 million (capital) State Toxics Control Account $13.8 to State Parks from State Building Construction Account

Why this matters

Our state parks should be models of environmentally safe practices, and should lead by example. Stormwater runoff and wastewater are significant sources of pollution in Puget Sound and Hood Canal. Failing wastewater systems at state parks add sewage overload and suffocate marine life.

Puget Sound and the Seattle waterfront. Urban stormwater carries pollutants into the Sound, while old pilings leach toxins into the water.

Reduce stormwater runoff into Puget Sound and Hood Canal

This provides local governments funds to implement innovative solutions to stormwater runoff into Puget Sound and Hood Canal. These projects, such as natural drainage and low-impact development activities, will protect or restore water quality. Focusing on Puget Sound will stimulate new approaches to address urban stormwater runoff statewide.

$2.5 million (capital) State Building Construction Account

Why this matters

Land is generally paved over during development, and water, no longer able to soak into the ground, runs off roads, parking areas, rooftops and other hard surfaces, creating stormwater. Stormwater running over developed land picks up oil, grease, metals, yard and garden chemicals, dirt, bacteria, nutrients and other pollutants from paved areas, and carries them to streams, rivers, wetlands and Puget Sound. If not properly managed, stormwater can also flood and damage homes and businesses, and damage or destroy fish and wildlife habitat. Because less water soaks into the ground, drinking water supplies are not replenished and streams and wetlands are not recharged.

Beach lovers enjoy Twanoh State Park's waterfront.

Courtesy Washington State Parks and Recreation Commission

Managing Columbia River water

The landmark Columbia River Water Resource Management Program will allow access to the Columbia River's water resources while providing adequate protection for endangered salmon and other species.

The bill commits to developing new storage and water conservation projects on the Columbia River, provides a formula for allocating newly stored water, and creates mechanisms for jumpstarting conservation measures and improving current management operations on the Columbia River. One-third of all newly stored water will be allocated to support stream flows for fish. Two-thirds of newly stored water will be available for new out-of stream water uses, such as farming, industry and municipal growth.

$2 million (operating) State General Fund
$20 million (Capital) State Building Construction Account

Why this matters

The Columbia River is the economic lifeline of the Pacific Northwest. Agricultural interests in the Columbia basin are worth billions of dollars. The river is home to the single most important salmon run of the area, and drives the salmon fishery of the entire region. Supplying water to support growing communities and a healthy economy, while meeting the needs of tribes, agriculture and fish is one of the most important issues facing the state, and key to a sustainable future.

photo by Andrew Rakowski

The Columbia River through the Hanford Reach.

Preventing oil spills by making oil transfers safer

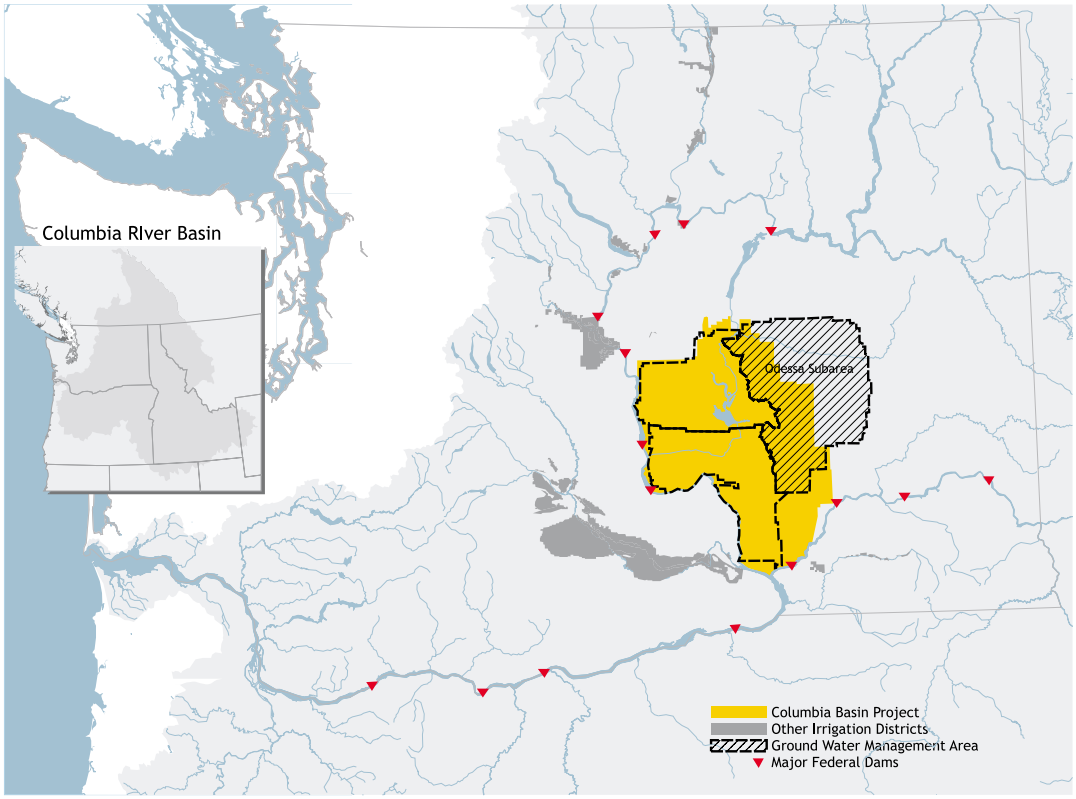
Senate Bill 6641, passed in 2004, adopted a zero spills goal to prevent oil from spilling into waters of the state. This budget provides funding to set up a transfer inspection program, hire inspectors and implement the legislation, to prevent spills during the transfer of oil between oil tanker ships, cargo vessels, shoreline facilities, tank trucks and oil barges.

$820,000 (operating) Oil Spill Prevention Account

Why this matters

Annually, billions of gallons of oil are transferred in more than 9,600 separate transactions at hundreds of locations across the state. Most of these transfers take place over or near water. Each poses a risk to the environment that can be reduced or eliminated through prevention and response measures. The most important way to achieve the "zero spills" goal is to focus on spill prevention equipment, operating procedures, and personnel training, all of which should be in place before an oil transfer operation begins.

Map of the Columbia Basin. The basin covers parts of seven western states and British Columbia.



Help first responders ensure a timely response when spills happen

Funding is provided to hire additional state spill responders for pipeline, oil refining and transportation-related spills to reduce the risk of hazardous material spills in Snohomish, Skagit, Whatcom, Island and San Juan counties.

These counties are seeing an increase in the number of spills, with some 300 new reports a year. Ecology will pre-position spill response equipment at 40 critical locations around Puget Sound and Hood Canal, enabling a quick response by state, local or tribal first responders, and pre-position spill response equipment in other critical locations statewide.

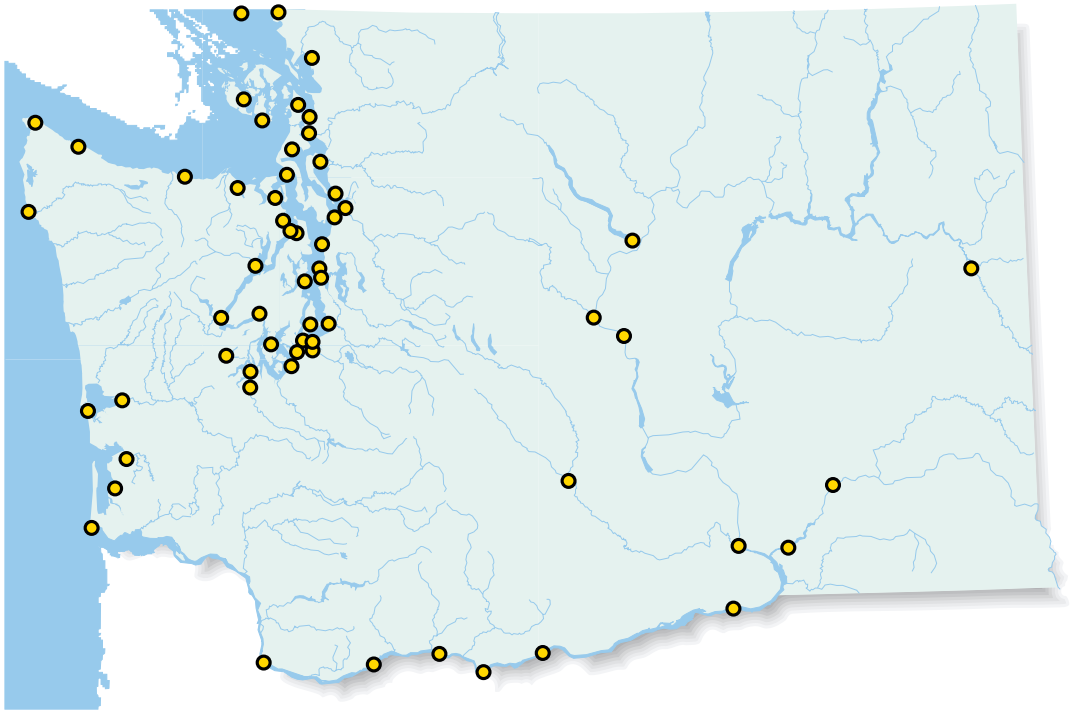
$1.65 million/$201,000 (operating) $1.45 (capital) State and Local Toxics Control Accounts

Why this matters

This funding provides small communities access to spill protection equipment that previously has not been available to them. The equipment can make all the difference during a spill. For example, in August 2005, a marina fire in Gig Harbor destroyed 50 boats containing thousands of gallons of oil and fuel. The harbor was spared an environmental disaster because inexpensive spill response equipment was pre-positioned there. Quick deployment of booms, absorbent materials and other response equipment quickly cleaned up the oil and fuel, saving an estimated $1 million or more in cleanup costs and harm to marine and shore life.

Local first responders deploy booms and avoid an environmental disaster during the 2005 marina fire in Gig Harbor.

Funding will allow Ecology to pre-position spill response equipment at critical sites statewide



Part 2: Cleaning up toxic spills, preventing toxic contamination, protecting people and the environment from toxic exposure

Clean up mountains of waste tires

Washington's estimated three million waste tires add to environmental and health problems. This appropriation will clean up the worst of Washington's mountains of waste tires, including the state's largest waste tire cleanup site near the town of Goldendale in Klickitat County.

$4 million (capital)
Waste Tire Removal Account

Why this matters

Waste tires are more than an ugly, irritating nuisance. Piles of waste tires are a significant fire hazard, and make excellent habitat for rodents and mosquitos, thus increasing public health risks from disease and illnesses such as the West Nile virus.

A few of the millions of waste tires abandoned across Washington

Focus on health risks to children in schools

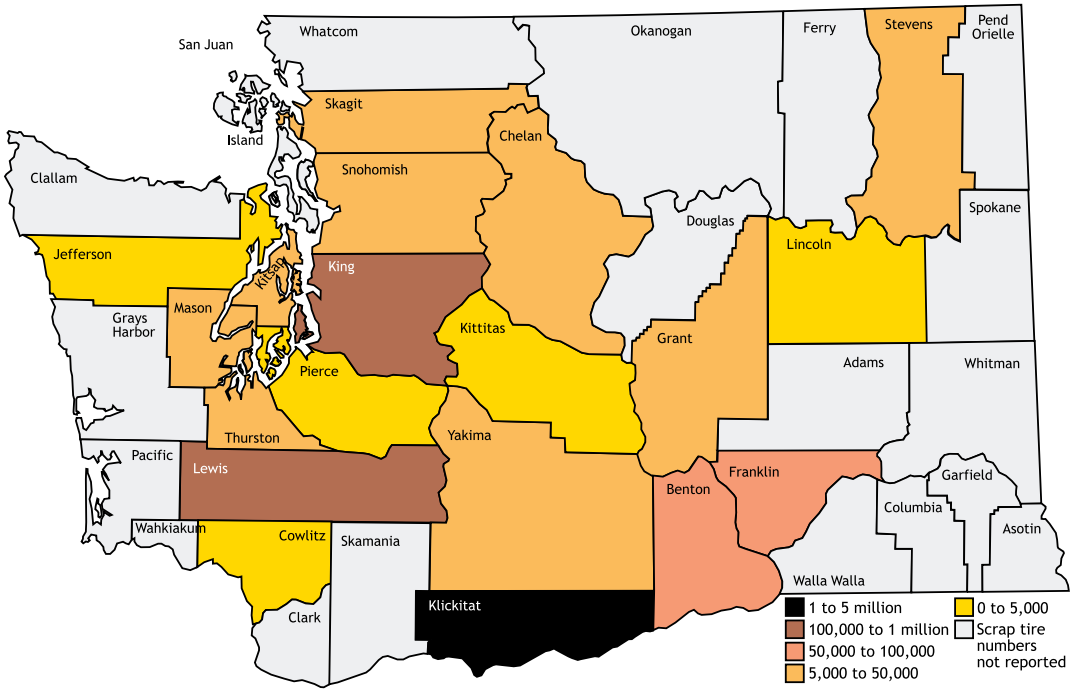
Widespread, low-level lead and arsenic contamination caused by historic smelting and agriculture practices within the state create special challenges for children. A 2001 stakeholder task force identified cleanup at five schools as a priority. This budget will fund soil investigations and cleanup at these five schools.

$2.3 million (capital)
State Toxics Control Account

Why this matters

Lead is a toxic material that can poison the blood. Children who are exposed to lead can suffer learning disabilities and even neurological damage. Arsenic is linked to more than 30 different adverse health effects in humans, including decreased production of red and white blood cells, abnormal heart function, blood vessel, liver and kidney damage, diabetes mellitus, impaired nerve functioning and various forms of cancer.

Waste Tires by County (in Passenger Tire Equivalents)



Ecology is working to:

- *Prevent spills*
- *Clean up toxic messes*
- *Protect people and the environment from toxic exposure*

Preventing toxic contamination: Prevent hazardous waste releases by increasing compliance with existing regulations

Ecology is responsible for inspecting businesses that generate hazardous waste to make sure they are complying with state and federal hazardous waste management laws. The agency also inspects and issues permits to facilities that treat, store or dispose of hazardous wastes, such as solvents, acids, heavy metals and petroleum products. To respond to environmental and public health threats at these facilities, four additional inspectors will increase the number of inspections and corrective actions around the state.

$580,000 (operating) State Toxics Control Account

Why this matters

It is more cost effective and environmentally responsible to prevent toxic contamination from entering our air, water, land, homes and bodies, rather than to clean it up later.

Hanford Nuclear Reservation Cleanup

Protecting people and the environment from toxic exposure: Provide coordinated prevention grants to local governments

Grant funds from the Department of Ecology are used by local governments for solid and hazardous waste planning, household and small business hazardous waste collection and disposal, program development and local solid waste enforcement. Local governments accepted federal delegation authority to manage solid waste, and these grant funds provide critical infrastructure for them to carry out these responsibilities. This is particularly true for small local governments.

$8 million (capital) Local Toxics Control Account

Why this matters

Every county, and some cities in the state receive these funds to inform and educate communities, and build programs to reduce, manage, or eliminate wastes. Without these funds, some communities would not be able to collect and dispose of waste or recycling. When effective local programs don't exist, we will always be cleaning up new toxic sites.

Legal defense of the Cleanup Priority Act (CPA)

In November 2004, Washington state voters passed Initiative 297, which requires certain actions at facilities that manage radioactive and hazardous waste. The initiative created a new law known as the Cleanup Priority Act (CPA). In December the United States filed a lawsuit challenging the legality of the CPA. A Federal court order currently restrains the State of Washington from implementing the CPA until the court decides the case. The Attorney General's office (AGO) must defend the CPA against the legal challenge. Ecology, as the agency responsible for CPA implementation, is funding the legal defense through an interagency agreement with the AGO.

$546,264 (operating) State Toxics Control Account

Why this matters

Cleanup of Hanford is of critical importance to the state's environment and is a high priority for the Department of Ecology. Defense of the CPA is a required action by the state.

Groundwater Contamination at Hanford

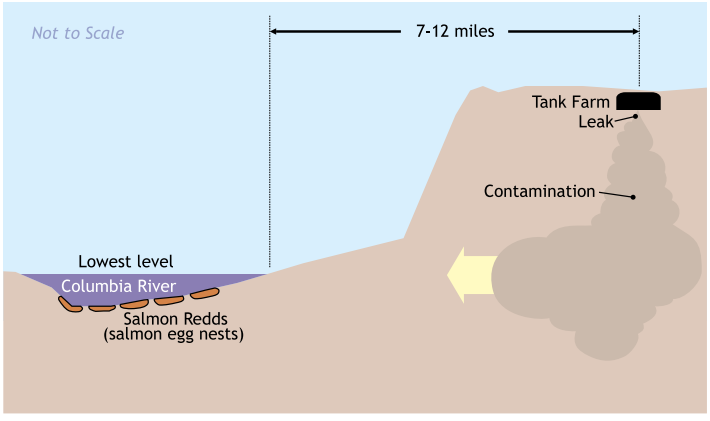


Illustration of how contamination from Hanford waste tanks spreads through water underground.

Hanford Groundwater Modeling

The Department of Ecology is responsible for overseeing the cleanup and management of the Hanford Nuclear Reservation. Several highly complex environmental documents are currently under development or modification by the U.S. Department of Energy. To properly review and analyze these documents, Ecology needs to perform specialized groundwater modeling and risk assessment work. The budget includes fee-supported funds to procure contracted services to support existing staff in the evaluation of the Hanford Solid Waste Environmental Impact Statement (EIS), Hanford Tank Waste EIS, Hanford Integrated Disposal Facility Permit risk analysis and Hanford Tank Farms Closure Plan risk analysis.

$120,000 (operating) State Toxics Control Account

Why this matters

The scientific and technical basis behind the agency's decision-making must be very high quality. Ecology's current level of staffing, technical expertise, and computer resources are not sufficient to perform the review and analysis anticipated over the next four years. By contracting for the resources, a private firm will be able to provide the necessary technical and computer resources and accommodate the variable workload as agency decision-making proceeds. Each of the documents will have considerable impact on progress and success of the Hanford cleanup, and are of significant importance to tribal nations and Hanford stakeholders.

Implementing the Cleanup Priority Act (CPA)

If the CPA withstands the court challenge, the Department of Ecology will be required to take certain actions related to the cleanup and management of mixed waste. Initial costs for implementing the CPA are primarily staff costs for rule development, permitting, regulatory decision making, and legal support. Grants for public participation will begin once rules are developed and will be the primary ongoing costs of the CPA after the initial permitting and cleanup actions are completed.

$2.4 million (operating) State Toxics Control Account

Why this matters

Assuming the Cleanup Priority Act withstands the court challenge, it will require Ecology to begin taking specific actions, including:

- Require final status permits before accepting "off-site" wastes, and prohibit issuance of final status permits until a facility is in full compliance and all cleanup is complete.
- Order cessation of "all further waste" disposal within 60 days at sites where mixed wastes are/were disposed in unlined trenches.
- Create an inventory of disposal sites that includes characterization of the site, investigation of releases, preparation for waste retrieval, treatment, closure, and monitoring, including installation of groundwater monitoring within 2 years
- Prohibit closure of individual tanks until all tank releases/hazards have been addressed
- Cleanup of radioactive releases to Model Toxics Control Act standards
- Establish new public participation grant program

Part 3: Other strategic investments for a healthy environment

Our warming planet

The Department of Ecology will undertake an effort to collect, analyze and report on global warming emissions data and trends, develop a system in support of market trading in greenhouse gases as anticipated in SHB 3141 (CO_2 mitigation for power plants), provide critical policy choices and measure effects of policy options. This expands the use of existing hardware, software and expertise in developing traditional air pollutant inventories to incorporate Green House Gases consistent with other state and national protocols.

$200,000 State General Fund

Why this matters

Compelling science from the University of Washington and Pacific Northwest National Laboratories shows high probability for significant northwest environmental and economic impacts due to global warming.

A number of initiatives and actions are occurring that create the need for better information to make policy decisions on global warming.

- West coast governors, northeast states and international initiatives on global warming all require emissions tracking.
- Development of international and regional greenhouse gas emissions trading programs (EU and NE states) are based on a solid understanding of emissions.
- SHB 3141 (2004 session) - CO_2 emissions mitigation is required for new or modified power plants. This requires tracking emissions and developing CO_2 mitigation plans.

Improving environmental mitigation

The supplemental budget includes funding for the Office of Regulatory Assistance for implementation, in cooperation with Ecology, of a broader Wetland and Conservation Offsite Banking Mitigation program.

$550,000 State General Fund

Why this matters

Several studies have shown that the current approach to environmental mitigation (replacing or restoring resources) doesn't work very well - for permit applicants or for the environment. Under this initiative, Ecology will build upon various approaches (e.g., Dept. of Fish & Wildlife's "mitigation optimization," the Transportation Permit Efficiency & Accountability Committee's pilot projects, and Ecology's wetland banking) to develop an environmental mitigation system that is more efficient and predictable for project proponents and that effectively and permanently restores and preserves high-value environmental resources within a watershed.

Energy Initiative: Waste-to-fuels technology

In a boost to Washington's bio-fuels industry, Ecology will form a partnership with Washington State University to conduct research on markets, products, and bio-fuels potential. The partnership will take the next steps in building the state's bio-economy. This will be completed under two projects as follows:

Bio-mass inventory – technology and economics assessment: Washington has an annual production of over 16.9 million dry tons of underutilized biomass (i.e. forestry, field straw and municipal waste). Estimates indicate this organic resource is capable of producing – through combustion or anaerobic digestion – about 50% of Washington's annual residential electrical consumption. The budget proposal takes the next steps in evaluating organic energy opportunities by identifying specific bio-fuels recovery technologies, while assessing market development economics for organic resources.

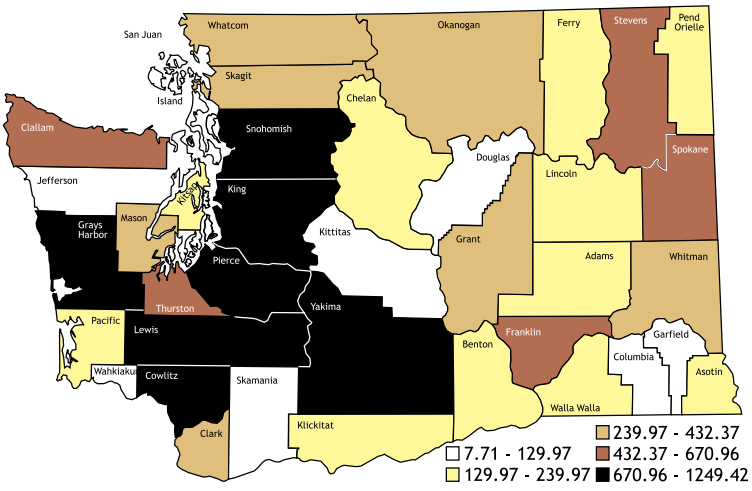
Municipal waste to energy - anaerobic digester: In order to help grow the bio-fuels industry, the Ecology/WSU partnership will conduct research on markets, products and bio-fuels potential. Specific work will include beginning a pilot project to convert solid waste to biogas through anaerobic digestion and to complete a biomass inventory. The project will include the economic and technical assessments necessary to help the public sector and private businesses complete successful bio-fuels projects.

$225,000 (Capital)
State Toxics Control Account)

Why this matters

Home grown bio-fuels decrease dependence on out-of-state energy, create price elasticity and market independence and provide local energy resource controls.

Potential Bioenergy by County (Bioenergy in million kWh)



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